



# GRADUATE STUDY IN THE UNITED STATES

a guide for foreign students

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### GRADUATE STUDY IN THE UNITED STATES

The purpose of this pamphlet is to supply information for the guidance of students in other lands who contemplate graduate study in the colleges and universities of the United States of America.

In entering upon his graduate study in this country, the student will undoubtedly find that the methods and practices are different in many ways from those to which he is accustomed. A student from abroad will often find American academic requirements somewhat rigid and irksome, especially in his first year. But it should be emphasized that prompt registration, regular attendance in classes, preparation for frequent written examinations during and at the end of semesters, readiness to participate in good English in class discussions, and attainment of satisfactory grades in individual courses, are part of the American pattern of education; these requirements have good reason for existence in the early phases of graduate study, because of the enormous variety of preparation and academic background of American students and may be appreciated as a necessary result of the great freedom of choice in secondary and college education available in the United States. Because a foreign student has customarily gone through a rigid curriculum in school, and is accustomed to greater freedom in his university work, the adjustment to these American requirements is often the most difficult he has to make. Nevertheless, he must make it. Otherwise he may fail to attain his goal, and certainly he will not derive the fullest benefit from his educational experience in this country.

Later in this booklet references are made to publications available in most foreign countries which explain the system of education in the United States. Here it will only be noted that for the first four years of college or university study, a student is enrolled in an undergraduate division, and upon successfully completing the prescribed program, he receives a bachelor's degree. The formal education of most college students in the U.S. ends at this point.

Those who continue enroll either in a professional school or in a graduate school. Study in a graduate school leads either to a master's degree (M.A. or M.S.) or to a doctor's degree (Ph.D.). It is specialized study and may be carried on in any one of the large variety of departments, fields, or areas of study.

For a master's degree, the minimum time required is an academic year (nine months), but a student from another country should expect to spend at least an additional term or summer session. For the doctor's degree, the minimum time is three academic years beyond the bachelor's degree, but many students find four years necessary, and in some cases even more. Most graduate schools do not require that a student fulfill the specific requirements for the master's degree before becoming a candidate for the doctor's degree, although many students find it desirable to do so.

# Eligibility for Graduate Study

The first question that confronts a prospective graduate student from abroad is whether he is prepared for graduate study in this country. While there are some variations in the requirements for admission to different graduate schools, the following conditions must be met:

1. The student must have a bachelor's degree, or the equivalent, based upon an educational program similar to that required

in this country: namely, at least twelve years of elementary-school and secondary-school work followed by four years of university work. Applicants from schools that do not meet this standard (for example those that confer the bachelor's degree after two years of college work) will be required to complete additional undergraduate work in this country before being considered for graduate study.

- 2. The student must have a high academic record and must have attained proficiency in the field of study in which he expects to specialize. Only students whose scholastic records are sufficiently high in quality to show promise of success in graduate studies can hope to be admitted.
- 3. The student must be able to read, speak, write, and understand the English language. If he comes inadequately prepared in these respects, it may be necessary for him to postpone his graduate work until he has obtained a sufficient knowledge of English. The colleges and universities in the U.S. are becoming stricter in their English requirements; some ask applicants for admission to take a comprehensive examination to determine their proficiency in English. Many schools make it possible for a foreign student to improve his English before, or concurrently with, his graduate work by offering special classes for this purpose or by maintaining what are known as English Language Institutes. A number of schools have summer orientation courses which a student may find it desirable to attend, if he is to arrive in this country early in the summer. These courses concentrate on the improvement of the student's English and on discussion of United States history, social customs and education. A list of schools offering such courses may be obtained from the Institute of International Education.

The fulfillment of these general requirements does not mean that a student will be admitted to the particular graduate school he may select. The school itself makes that decision. Each school can provide instruction and supervision for only a certain number of graduate students and often cannot admit all applicants, even if eligible. For this reason it may be wise for a student to select two or more schools to which to apply.

### Selection of a Graduate School

A student from another country who is willing to sacrifice time and money to study in the U.S. will wish to enroll in a graduate school well equipped to furnish him with the type of instruction and facilities needed in his chosen field. Naturally, he will think first of the older and larger ones, of which he has often heard and which are know to have excellent libraries, well organized laboratories and large and diversified faculties.\* He should consider, however, that some of the smaller schools in this country are also well equipped and staffed, especially those that have a restricted attendance, and that they often have certain advantages over the large institutions. For one thing, the classes are smaller and, therefore, the student will receive more help and personal attention. His relationships with his teachers and other students, as well as with the people of the community, will also be more intimate. The proper selection of a graduate school may also depend somewhat on the degree the student has set as his goal; many schools well equipped to confer the mas-

<sup>\*</sup>In American colleges and universities, the term "faculty" means the entire teaching staff, as here, or the teaching staff of the particular division designated.

ter's degree have only limited facilities for the additional work for the doctor's degree.

### Sources of Information

The first step in the selection of the graduate school to which a student will finally apply for admission is to secure all possible information about education in the United States and about possible specific schools. It is important that he start gathering such information long before the date he has set for beginning study in the United States so that the final decision can be made with deliberation, and the required procedures carried out. Advice should be sought from his teachers and other informed college authorities, and from students who have returned after study in graduate schools in this country, particularly students recently returned. Almost every United States diplomatic mission located in the large cities has a Public Affairs Officer or Cultural Officer whose staff can give advice and assistance, as can that of the United States Information Service (USIS) wherever located. There are also libraries connected with those offices where helpful books and pamphlets may be consulted, and many have a file of catalogues and pamphlets issued by individual colleges and universities. These catalogues give specific information about the history of the school, its organization, surroundings, faculty, courses in various fields, tuition fees, living expenses, scholarships and fellowships with their various requirements, procedure for admission and other items of interest. The information they provide is helpful both in the choice of school and in deciding questions of finance and other problems.

The Institute of International Education tries to advise students who write them stating their plans and their interests. A book which is an exceedingly valuable reference is American Universities and Colleges, 1956 Edition, published by the American Council on Education. This large volume includes a chapter entitled "The Foreign Student in the United States," as well as a detailed explanation of the program of graduate study that leads to the master's and doctor's degrees and a description of all the graduate schools on the regional accredited lists.

### Fields of Specialization

The table on pages 11-18, taken from American Universities and Colleges, shows the number of doctor's degrees granted in various fields by the larger graduate schools. It, therefore, gives some indication of the principal fields of advanced study in each school. It does not, however, include all of the fields or their subdivisions. For example, in some graduate schools there are doctoral programs in American civilization and culture, in architecture, and in a number of the medical sciences. Moreover, an individual graduate school may offer a doctoral program which is to be found in few, if any, others, and these programs may be of great interest to students from other countries. A complete list of these programs and the graduate schools offering them is not now available, but a student wishing to do advanced work in some special field not included in this table may write the Institute of International Education, asking them to suggest graduate schools where such a program may be found.

### Acceptable Universities

It is highly important that the college or university selected by a student be accredited. Many states, and several regions (groups of states) have set up certain standards which a college or university in this country must meet to be listed as accredited. This list assists graduate schools in the selection of well-qualified students for advanced study and safeguards a student from unknowingly entering a school of inferior rating.

One of the requirements of the United States Government for the issuance of a student visa is that the school selected be approved by the Attorney General after consultation with the Office of Education of the U.S. for students from abroad.

### **Estimate of Expenses**

Since a student from another country is likely to be limited in the funds available to him for foreign study, the expense involved may be an important consideration in the final choice of a school and he should secure information on this point very early in his planning. An estimate of average expenses for one calendar year, exclusive of travel costs, is \$2500. However, at some schools it will be higher; at others it will be lower.

To make a reasonably close estimate of his expenses, a student must consult the most recent catalogue of the graduate school he is considering, a copy of which will be sent him by the school, upon request, usually without charge. There is great variation in tuition and other fees charged by the different schools, and changes are frequently made by individual schools. In general, tuition is usually higher in private schools than in those supported by public funds, and higher for schools on the East and West Coasts than for those in the Middle West and South. There is also variation in the cost of living in different parts of the country. There will be miscellaneous expenses for such things as clothing, laundry, books, health insurance, vacation periods and social and recreational activities. The catalogues of many schools give estimated figures of average total expenditures, exclusive of travel. To this should be added the cost of travel from the student's country to this country, and within this country to the school, and return. Accurate estimates of travel costs should be obtained in the student's homeland.

### Financial Assistance

### Fellowships and Scholarships

The catalogues of the individual schools will give information about the scholarships and fellowships they offer. Most schools have only limited funds for such assistance and they often give first consideration to applicants who have completed a year of study in the United States, with an outstanding record. The application of a foreign student with such a record will be considered along with the applications of all other students and will be judged by the same standards.

Some schools, however, have a few special fellowships or scholarships for entering graduate students from other countries. If a student plans to apply for one of these, he should be sure to do so in the manner and by the date specified. This specified date is usually February first or March first but may be earlier. At the same time, the student should submit his formal application for admission to the graduate school. (See page 6.)

In addition to scholarships and fellowships that are offered by individual schools, there are other possible forms of assistance for outstanding students. In some countries, the government or private organizations may provide funds under certain circumstances. Such possibilities should be investigated first. A publication by the United Nations Educational, Scientific and Cultural Organization (UNESCO), entitled "Study Abroad, International Handbook of Fellowships, Scholarships and Educational Exchange," Vol. VI, 1953-54, gives extensive information about such student aids, indicating for each country those offered by sources within the country to its own nationals for study abroad, and those available to the nationals of other countries. For the United States, there is information about those offered by individual schools, by foundations and other private agencies, as well as about the grants now being offered by the United States Government under its International Educational Exchange Program. This book may be consulted at the United States Consulates and at the offices of the United States Information Service.

The value of scholarships, fellowships and other grants varies. The United States Government grants may include travel, maintenance, tuition and certain incidental expenses. There is a very limited number of private awards that include travel to and from the United States, tuition and living expenses; some that include tuition and living expenses; some that include tuition and board and room; and others, which are the most common and least difficult to obtain, covering tuition alone.

In the United States the Institute of International Education is the central organization administering many kinds of grants offered by governmental and private agencies. A number of graduate schools frequently utilize the services of the Institute as a screening agency in making their awards. The Institute and the United States Government have the cooperation of Selection Committees (often called "Committees on Study and Training in the United States") in many countries of the world. The first step in applying for financial assistance through the Institute is to obtain an application form from the Selection Committee or the United States diplomatic mission in the student's homeland. The address of the appropriate selection agency in the student's country may be obtained if necessary by writing to the New York office of the Institute. The Institute will negotiate the student's acceptance by a graduate school but, as a general rule, only if he has submitted his application through a Selection Committee abroad. Therefore, the completed application form should be returned to the local Selection Committee, together with the other documents and supporting evidence specified. Any student applying for an award through the Institute, is not expected to apply directly to a graduate school for ad-

Applications for the various types of assistance administered by the Institute must be filed in September or October of the year preceding that in which studies are to be undertaken.

### Other Forms of Financial Assistance

After a foreign student has studied in the United States six months or more, it is sometimes possible for him to arrange with his school for an emergency loan. These are usually for small amounts and must be repaid within a very short time. He may be able to find paid employment during the vacation periods, or there may be opportunities in the community for him to earn some of his expenses by working part-time during the school year. This is only possible if he can do so and still satisfactorily carry a full program of study, as is specified by the immigration laws. (Permission of the U.S. Immigration Service must be secured in either case and the student may be required to pay a U.S. Government Income Tax.) The possibilities of outside income, however, are uncertain, and even emergency loans are not available at all institutions.

Accordingly, a student should have assurance of adequate financial support before he leaves his homeland, and if the support is to come from there, he must take into account the dollar-exchange rate and any limitations on the amount he is permitted to take out or have sent to him. If he is to receive a fellowship or other form of assistance in the United States, all arrangements should be completed in advance of his coming. Without sufficient funds, he will soon find himself in difficulties and may be forced to return home. The school to which he has been admitted can assume no responsibility for his financial problems. The Foreign Student Adviser will, of course, be glad to discuss them with him and make such suggestions as he can.

### Application for Admission to Graduate Study

Before a student can be enrolled in a graduate school in the United States, he must have a formal certificate of admission from that school. Moreover, he will need such a certificate when he applies for the passport from his own country and for a United States visa. Unless all arrangements are being made for him through the Institute of International Education (see above), he must make a formal application for admission to the particular graduate school he has selected.

At least eight months before he plans to leave his home, he should write to the Admissions Officer of the graduate school, requesting a catalogue and other descriptive material, and any special information he desires. He should also request the proper form on which to submit his application for admission. Upon receipt of this material, which will include instructions as to the procedures he must follow, the student should read the instructions and fill out the blank with care, supplying all the information requested and specifying clearly the field of study in which he plans to work. This is important since usually the department in which he will carry on his work must be consulted to determine whether his preparation for advanced study is satisfactory and whether space and proper supervision can be supplied for him. The student should then return the blank to the graduate school, together with an official transcript of his record from each school he has attended, showing each subject studied, the year in which it was studied, and the grade made in each subject, if available. If the school's system of keeping student records does not include all of these facts, then as complete information as possible should be supplied. The transcript should also show the degree received, with any honors obtained, the division in which he placed in his final examination or any similar indication of the quality of his work. It is important that the degree be certified exactly as it was conferred and that no attempt be made to designate it in terms of what may be regarded as the equivalent degree in the United States. Each document should be signed by the official in charge of the school's records and should bear the official seal. Other documents and papers are often specified, such as: (1) a photograph to be attached to the record; (2) a letter of reference from an educational authority that shows the scope and quality of the student's work; (3) a statement testifying to knowledge of English; (4) a health certificate.

The applicant should write, at the time of his original inquiry to the Admissions Officer, also to the Chairman of his proposed department of study, for information on specific departmental requirements, such as particular courses of study, language preparation, etc.

A graduate school in the U.S. may have had little or no

experience in admitting students from some of the foreign schools whose graduates are now seeking admission; since there are no lists of accredited foreign schools such as the regional accredited lists of United States schools, the proper evaluation of an applicant's credentials often presents difficulties. The United States Office of Education, in Washington, D.C., has information on schools abroad and gives assistance that the graduate schools find very valuable, but the time needed for consulting this office delays action on a student's request for admission. It is important, therefore, that the student give specific, accurate and detailed information about his training and the schools he has attended, so that a prompt decision can be made. Catalogues of the schools, if available, are often helpful.

If the credentials submitted are satisfactory and the student is granted admission he will receive an official certificate of admission. The certificate may indicate some special conditions that must be fulfilled before he may become a candidate for a degree.

There will usually be three copies of the certificate of admission. One will be kept by the United States Consul to whom the student applies for a visa, one will be attached to the visa and one is to be retained by the student for identification.

If an applicant is not admitted, his transcript will be kept by the school unless he requests that it be returned to him or specifies a particular school to which he wants it sent.

### Admission to the United States

### **Passport**

The student should next apply for a passport from his government. The regulations governing the passport vary with different countries. It should be valid for a period of six months beyond the end of his expected stay in this country. The student should inquire about any regulations of his government affecting his stay in this country or affecting the amount of money he can take with him or have sent to him.

### Visa

Since it may take some time to secure a visa, it is important that the student begin as early as possible to assemble the required documents and take the steps necessary to fulfill all the requirements. Therefore, it is suggested that he make preliminary inquiry at the nearest United States Consulate to learn what type of visa is best suited to his purposes (almost always a Student visa or an Exchange-Visitor Program visa) and what documents and other supporting papers will be required.

### **Transportation**

Whether the student expects to travel by boat or by airplane, arrangements should be made as early as possible. In most cases, the student will find that he will save money and avoid some inconvenience upon his arrival in the United States if he buys a ticket to his final destination rather than to the port of entry.

A student should arrange for transportation at a date which will enable him to arrive at his school at least one week before the opening date. Arrival after classes have begun will cause serious difficulties and may result in the loss of a whole semester. If arrangements for a room have not been made in advance, he should arrive earlier. At most schools, his conferences with the Foreign Student Adviser and with his departmental adviser, and

the procedures necessary to complete his enrollment occupy the entire week before classes begin.

### Accident and Health Insurance

Although health conditions in the United States are good, it is recommended that a student take out health and accident insurance to cover the period of his stay and his travel back and forth. Special arrangements can be made by foreign students for accident and health insurance through the U.S. Life Insurance Company, A&H Underwriting Department, 84 William Street, New York 38, New York. The policy will provide up to \$750.00 for most types of illness and accidents and will pay \$1000.00 to the beneficiary in case of death. The cost, at present, is \$27.20 for the year and \$15.50 for six months. The U.S. Life Insurance Co. will supply further information upon request. Most colleges and universities provide ordinary medical and hospital services during the sessions in which a student is enrolled, at a fixed charge that is usually included in the fees paid. The extent of the service, however, varies, and it does not cover major operations, protracted illness or illness contracted before the student enters the school. In order to insure coverage from the time of his departure it is wise, if possible, for the student to arrange for an insurance policy before he leaves his

### Arrival in the United States

Many steamship companies and airlines provide detailed instructions to their passengers before landing. The Committee on Friendly Relations Among Foreign Students, 291 Broadway, New York City, or 291 Geary Street, San Francisco 2, California, will send a representative to meet a student arriving by boat or plane, if he has requested it in advance, stating the time and place of his expected arrival (in the case of travel by boat, giving the name of the steamship company and the boat, and in the case of travel by plane, giving the name of the airline and the flight number). This representative will wear a blue arm band with white lettering, saying "Foreign Student Adviser." The Travelers Aid Society, which has representatives at ports, railway stations and air terminals, may be consulted by any traveler. Furthermore, the government officials with whom the student will deal are expected to be helpful to the people arriving in the United States and a student should never hesitate to consult them. He should not, however, consult an unidentified stranger.

A student should have about fifty dollars in United States currency when he arrives, and have the rest of his money in traveler's checks. He may be asked to show his money to an immigration official. He should also have all his official papers with him and in order. Ordinarily, he will then encounter few, if any, difficulties in the process of being admitted to the country.

### First Steps

First, a Public Health official will look at the student's health certificate and chest X-rays. If there is doubt about his health, he may be sent to a United States Government Hospital for tests or treatment. Otherwise, he will be sent on to a representative of the Immigration and Naturalization Service.

The immigration officer must inspect the student's passport, visa, certificate of admission to the college or university, and the documents showing how he will be financed in the United

States. He will also require some indication of the student's plans for leaving the country. If the papers are found to be unsatisfactory, there may be a delay of some time—in very rare cases for several days or a week. Under such circumstances, the student should immediately notify the school to which he is going or his sponsoring agency.

When all of these procedures are completed, the immigration inspector will stamp the landing card and the passport with the date of entry, take the visa, and give the student an entry permit specifying the period for which he is admitted to the U.S. This very important permit should be kept with the passport in a safe place at all times.

The student will next see a customs official, who will give him a customs declaration sheet. If he is bringing into the country only his personal belongings, it will usually be sufficient for him to write "personal effects" on the sheet. New merchandise, however, must be listed and he will be required to pay duty on it. Duty is especially high on microscopes and other scientific instruments manufactured outside the United States. The student takes the customs declaration sheet to another customs official who will examine his baggage. After this official has placed a stamp on each piece, it can be removed and the student is free to leave the pier or airport.

Before leaving the pier, the student should have some of his currency changed to low denomination paper money and coins, such as one, five and ten dollar bills, and five, ten, twenty-five, and fifty-cent pieces, most often referred to as nickels, dimes, quarters and half-dollars. These will be needed to meet his small, immediate expenses.

Also, before leaving the pier, the student should be sure that he has put his certificate of admission, the catalogue of his school and any instructions sent him in a piece of his baggage which he plans to keep with him on his travel to his school. It would be helpful to him if he spent some time during his journey in reading over the instructions to be followed upon his arrival.

If, for any reason, the student wishes to stay overnight, or longer, in the port city and has not made arrangements in advance, the Young Men's Christian Association (Y.M.C.A.) or the Young Women's Christian Association (Y.W.C.A.) can usually provide a room or recommend a place to stay. The "Foreign Student Adviser" or the representative of the Travelers Aid Society at the pier may also be of help. The minimum cost of a room for one night will probably be two dollars and fifty cents, and the cost of a meal will probably be one dollar or more.

### Travel in the United States

Unless he has a through ticket to his final destination, the student should ask the representatives of these organizations for advice as to the best means of transportation for him to use in view of the amount and type of baggage he has, the time at his disposal before he must be at his school, his desire to see something of the country en route, and any other special considerations.

### Arrival at the School

It is important that the student plan in advance not to arrive at his school on Saturday or Sunday, and, if possible, not at night, unless he has made arrangements for a room and knows it will be ready for him. Generally, all of the offices of the school will be closed at these times.

Upon his arrival he should follow the instructions that have been sent him by his school. These will indicate the offices to which he should go first. Usually he will be directed to report to the office of the Foreign Student Adviser or to the International Center for advice about finding a room and about any other personal problems, and to report to the graduate school to begin the proper procedures for completing his enrollment and selecting his program of studies. After that, he needs only to familiarize himself with the requirements for the higher degree he is seeking, as stated in the catalogue of the graduate school, and to follow the guidance of his departmental adviser and of the instructors in the courses he has elected. They should be consulted whenever he needs advice or help. It is extremely important that a student from abroad understand that this is the customary procedure and that his instructors and advisers expect him to take the initiative in such matters.

# OTHER PUBLICATIONS FOR FOREIGN STUDENTS

Handbook on International Study. Comprehensive information on study in the United States for foreign students and on study abroad for U.S. students. \$3.00 a copy.

Liberal Arts College in the U.S.A. Guide to undergraduate study in the United States for foreign students. 15 cents a copy.

The Two-Year College in the United States. Guide for students from other lands who are interested in undergraduate study in the United States. (Published in cooperation with the American Association of Junior Colleges). 15 cents a copy.

### DISTRIBUTION OF DOCTORATES, 1948-1955, BY SUBJECT AND INSTITUTION®

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87   N.Y.   Adelphi Coll.	1 24 24 6 6 1	033322 98550438	33 20	6 5 5 7 2 4 7 7 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7	13	15		-	33	188 21		30	1 24	3	14	94 22 142 9	392	9	18 5 	10 - 4 - 2 20	86	37 129 - - - - 4	73	34	15 48	13	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 6 4 - 4 2 2 35	19 115 35 37 313 23 23 14 38 9	7	16	12	25 37 
104 N.C.   Duke Univ.	13 2 14 2 4	9 1 2 4 4 9 9		4 4	6		13	-	2				13	3 13	1 -	1	59 91 10 628 49 117 53 34	158	3 4 3	<u>_</u>	23 6 16	10	14 - 9 8 42 3 - 3 3 21	32	31	11 2 2		28	7 - 3 - 14 1 -	29 20 9 191 15 74 8 19		9	15 - 11 - 51 2 - 15 8 -	2 -3 -5 16 13 -5 -12
118	2 2 2 11 7	-	-	-	3 2 2	2	5 2 5				7 - 2			-	122	16	226 165	97	1	1 10 24 9	38	5 - 20 8	8	1	11111111111111	17		1 7	2	91 11 46 112	5 8		40	5 1 1 83 4
132 R.I.   Brown Univ.	1 1	1 1 9 7 7 6 6 - - 3 2		2 3	2 2 9					I—			1	- <del> </del>	1	3	5( 4- 9( 1: 1: 15:	62		30		16 6 1 12 -		14	2	1	111111111111111111111111111111111111111	11111111111111111	3	18 6 30 20 			8 4	
147 Ulah Univ. of Utab 148 Utab State Agric. Coll. 149 Vr. Middlenury. 150 Va. Union Theol. Sem. 151 Union Theol. Sem. 152 Univ. of Virginia 153 Virginia Polytechnic Inst. 154 Wash. State Coll. of Washington 155 W. Va. West Virginia Univ. 156 W. Va. West Virginia Univ. 157 Wis. Lawrence Coll. 158 W. Univ. of Wyoming. 159 W. Univ. of Wyoming. 160 Other accredited Institutions (20).	2	ī.		2	22		3 1				3	9	2	4 7 3	5-	•	1,06	1 8 8 8 2 2 6 3 3 3 7	3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	111111111111111111111111111111111111111	122	21 1	13 4 7 76	31	10	22		3 14 - 49 - 2	1 - 2 - 15	10 26	1 1 1 1 1 1 1 1 1 1 1 1	4111111111111	37.99	1

<sup>&</sup>lt;sup>a</sup> The preceding charts have been reproduced from American Universities and Colleges, 1956, Washington, D.C., American Council on Education. Pages 72-79.

Sources: Earned Degrees Conferred in Higher Educational Institutions. U.S. Office of Education, Circulars 247, 262, 282, 333, 360, 380, 418, 461. 1948-1955. Engineering Enrollments and Degrees. U.S. Office of Education, Circulars 421, 468. 1954-1955.

b To save space, twenty accredited institutions, none of which conferred any doctorates in 1954 or 1955, are combined in a single line in these tables.

### DISTRIBUTION OF DOCTORATES, 1948-1955, BY SUBJECT AND INSTITUTION

		PHYSICAL SCIENCES													SOCIAL SCIENCES															
fastkulion	Total	Astronomy	7 365	219	Engineering.	Lingineering.		Engin-ering,	Engineering.	Geography	Geology	Muthematics	Metallurgy	Meteorology		Physical Sci-	Total	& Anthropology	Business and Commerce	Economics	8.707 2	.257	International Relations	295 290		Political Science 142 Science	Public Administration	Social Work	1.025	Social Sciences,
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15   Cole.   Colorado A. and M. Coll.	1 39 - 105 - 35 452 125 93	2	38 		8 8 24 37	3		10	39		9 1 17	8 25 13 7	20		15	20 111111111111111111111111111111111111	95 192 82 - 28 362 1 84 171 58 8104	29		24 - - 10 - 27 - 25 20 8	95 151 81 27 89 1	161 28 	32	46		73 13 	14	7	34 3 3 1 36 6 25 1	1 1 3 2 2 -
29   Fla.   Florida State Univ.	15 86 25 34 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	15 52 25 10 - 1 1 45 1 117		19 19 12	3	15	15	12	-	532	19 9 4 4 9 55 63		13	17	7	13 86 22 9 34 - 16 174 873	13	17	6 	31 65 - 9 - 34 - 10 81	6 5	26	17	200	33	1	2	2	57
1	169 548 173 347 240 29 106	2	87 249 122 168 109 27 70 - 20 9 39	3	50 60 46 16 3 -	160	34	89 - 2 14 - -	53 25 3 21 19 - - 2	1110111	32	63 21 28 7 45 19 10 17 3	-		107 44 48 - 35 44 24 2 15 - 8 - 8		338 637 24 25 77 372 72 70 67	3	80	17 13 - 43 25 - 5	497 9 - 2 30 159 - 56 - 40	44 36 -7 -7 -42 -4 -16 -9		2	-	111  14  333 -4  2	********	9	13 2 - 4 19 - 3 - 3	=
58 Md. Johns Hopkins Usiv 59 St. Mary's Seminary and Univ 60 Univ. of Maryland 61 Woodstock Coll 62 Mars. Boston Univ 63 Chrk Univ 65 Massachusetts Inst. of Tech 66 Radeiife Coll 67 Smith Coll 68 Springfield Coll 69 Tufet Univ. (Intracrity Tufts Coll.). 70 Univ. of Massachusetts	7	21			7	333	5 87	1 84	123 104	51	33 - 2 83 52 4	11 10 6 62 58 5	89	12	- - - 10		92 64 1,39 26 1,127 41 84 - 3 21 1 146 393	322	-	41 23 - - 1	107 166 - 3 - 3 - -	27 8 17 14 258 21	3 3 2 21	9	-	156 12	277		127 23	222
72 Univ. af Michigan 73 Wayne Univ. 74 Minn, Univ. of Minnesota. 75 Miss. Mississips State Coll. 76 Univ. of Mississips State Coll. 77 Mo. Univ. of Mississips. 78 Univ. of Mississips. 79 Washington Univ. 79 Washington Univ. 70 Drew Univ. 70 Drew Univ. 71 Drew Univ. 72 Princeton Theol. Sem. 73 Princeton Univ. 74 Rutgers Univ. 75 Rutgers Univ. 75 Stevens Inst. of Tech.	568 57 353 	5	118 577 161 244 422 422 399 1222 600		38	19	177	14)	_	- - - 1 10	28 21 6 7 5 2	35 	4		97 37 	3 -	393 61 306 	-	11 4 - 3	27	110 111 110 111 190 333 90	62 42 25 24 7 19 			3	8 3 6 6 6 - 49 3		9	18	9
FT N.Y. Adolphi Coli.  SE DE Jan School  Columbia Univ.  Cornell Univ.  Fordbam Univ.  Fordbam Univ.  General Theol. Sem. of America  Sea York Univ. of Brooklyn.  Key York Univ. of Brooklyn.  Reascalaer Polytechnic Inst.  St. Bonnaventure Univ.  St. Bonnaventure Univ.  Syracuse Univ.  Very Columbia Univ.  Syracuse Univ.  Univ. of Brooklyn.	333-286-88	22 44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	198 161 58 183 42	15 15 15 15 15 15 15 15 15 15 15 15 15 1			28 22 28 2	111 188		1	1000 211 	699	-	15	112 106 6 	5	54 2,437 308 139		38 21	-	319	208 48 19 - 39 - - 8 8 3	- - -	:		1000	22	-	233	58
101 N.C.   Ouke Univ.	14 2 16 9 61 9 7 3 5	2 2 6 6 1 7 7 7 7 7 2 6 8 8	- 86 - 20 - 30 - 37 - 2	6 0 4 4 4 1 1 3 3	1 7/1		1 20	2	16		3	211 88 -4 5	133		54 	100	5.3 2.7 7.6 7	-	6		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22 58 2 - 29 14		31 60	: :	23		9	50	-
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132 R.I. Brunn Univ. 133 R.O. Rhode Island Coll. of Education 134 S.C. McGueal Coll. of South Carolina. 135 Univ. of South Carolina. 136 Tran. George Peabody Coll. for Teachers. 137 Univ. of South Carolina. 138 Trans 139 Trans 140 Baylor Univ. 141 North Teasa State Coll. 142 Rice Inst. 143 Teasa State Coll. for Women. 144 Teasa State Coll. for Women. 145 Univ. of Houston.	31	- 100 31 43 33 - 22	- 4 - 3 - 1	1 1 6 8 3 3 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 1	6	-!	-	13	3 2	3		199 177 8		13 2 2 2	3 5 1 5 9 2 2 2 0 0 9		-	3 - 1188 - 244 - 411 - 3 - 3 - 460 1844 - 411 - 411	20	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		-	-				
147 Utah Univ. of Utah.   148 Utah State Agric. Coll.   148 Utah State Agric. Coll.   150 Utah State Agric. Coll.   150 Utah State Old. of Virginia   151 Univ. of Virginia Polytechnic Inst.   152 Univ. of Virginia Polytechnic Inst.   153 Warh. State Coll. of Washington   154 Warh. State Coll. of Washington   155 W. Va. West Virginia Univ.   157 Wis. Lawrence Coll.   158 Univ. of Wasconsin   150 Urgo. Univ. of Wasconsin   150 Urgo. Univ. of Wooding   150	19	4	- 4 - 3 3 5 - 10 - 10 - 8 1 32	7 	- 1	8 8 7 1 1 5 2		6 1		7 4 4 - 1 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 1 - 1	7 1		1 2 5		5 100		9 3 12 52 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 - - - - - - - - - - - - - - - - - - -	6	10 1.	28 22 - 18 4 60 - 34 154	2 2	8 2 3 7	- 1	100	-	5			6

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### ASSOCIATION OF AMERICAN UNIVERSITIES

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Harvard University

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The Johns Hopkins University

Massachusetts Institute of Technology

McGill University

New York University

Northwestern University

The Ohio State University

Princeton University

Stanford University

State University of Iowa

University of California, Berkeley

University of California, Los Angeles

The University of Chicago

University of Illinois

University of Kansas

University of Michigan

University of Minnesota

University of Missouri

University of Nebraska

The University of North Carolina

University of Pennsylvania

The University of Rochester

University of Texas

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University of Virginia

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